

TEMPLE MODEL E-514

TRADE NAME Temple Models E-510 through E-519
 MANUFACTURER Templetone Radio Mfg. Corp. - New London, Connecticut
 TYPE SET AC - DC Superheterodyne - Self Contained Loop Antenna
 TUBES (FIVE) Types 12SA7 Converter, 12SK7 IF Amplifier, 12SQ7 Det.-AVC-AF, 50L6GT Power Output, 35Z5GT Rectifier.

POWER SUPPLY 117 Volts AC-DC Rating .240 amp. @ 117V. AC
 TUNING RANGE-BROADCAST 540KC to 1700KC SHORT WAVE

ALIGNMENT INSTRUCTIONS						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
.01 MFD	High side to ant. stator section of tuning gang. Low side to chassis.	455KC	High end of dial. (Rotor at min. cap.)	Across voice coil.	A1,A2, A3,A4.	Adjust for maximum output. Use isolation transformer if available. If not, isolating capacitor must be connected between signal generator ground lead and receiver chassis. Also decrease dummy ant. to .001 MFD to prevent excessive hum modulation.
	Loop	1700KC	Pointer at extreme left. (min. cap.)	"	A5	Adjust for maximum output. Connect signal generator to loop of few turns of wire and radiate signal into receiver loop by spacing of approx. 2 feet.
	"	1550KC	Tune in 1550 KC signal.	"	A6	"

Volume control at maximum volume and output from signal generator no higher than necessary to give output reading for all adjustments. Use insulated alignment screwdriver for adjusting. There are four marks on dial backplate that may be used as check points.

PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		TEMPLE PART No.	STANDARD REPLACEMENT		
1	Converter	12SA7GT	12SA7GT	8AD	
2	IF Amp.	12SK7GT	12SK7GT	8N	
3	Det.-AVC-AF	12SQ7GT	12SQ7GT	8Q	
4	Power Output	50L6GT	50L6GT	7AC	
5	Rectifier	35Z5GT	35Z5GT	6AD	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA						IDENTIFICATION CODES AND INSTALLATION NOTES
			TEMPLE	MALLORY	SOLAR	SPRAGUE	AEROVOX	CORNELL-DUBILIER	
	CAP.	VOLT	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
6 (A)	40	150	161.520	FP409	DY-3x40-150	EL-452	AF886D4A	UP9DJ48	▲ Filter †
(B)	40	150							■ "
(C)	40	150							▲ "
(D)	20	25		TC26	M-25-25				50L6 Cath. Bypass
6 (A)	80	150		FP357	DY-3x40-150	EL-452†	AF886D4A†	UP9DJ48†	▲ Filter †
(B)	40	150							■ "
(C)	20	150							▲ "
7	30	150		TC47	M-30-150	UT-301	PRS150-30	BR3015	Filter
8	25	25		TC26	M-25-25	TA-25	PRS25-25	BR252A	50L6 Cath. Bypass †
9	.05	400	164.005	TP423	S-4-05	TC-15	484-.05	DT4S5	Line Filter
10	.02	600	164.003	TP412	S-6-02	TC-12	684-.02	DT6S2	50L6 Plate Bypass
11	.005	600	164.009	TP408	S-6-005	TC-25	684-.005	DT6D5	Audio Coupling
12	.005	600	164.009	TP408	S-6-005	TC-25	684-.005	DT6D5	"
13	.05	400	164.004	TP425	S-4-05	TC-15	484-.05	DT6S5	AVC Filter
14	.005	600	164.009	TP408	S-6-005	TC-25	684-.005	DT6D5	Ant. Coupling
15	220	500	162.556	MC240	M0.5-325	1FM-325	1468-.00025	SW5T25	Audio Plate Bypass
16	100	500	162.522	MC235	M0.5-31	1FM-31	1468-.0001	SW5T1	RF Bypass Vol. Cont.
17	100	500	162.522	MC235	M0.5-31	1FM-31	1468-.0001	SW5T1	RF Bypass Diode
18	100	500	162.522	MC235	M0.5-31	1FM-31	1468-.0001	SW5T1	Osc. Grid Cond.
19	10	500	162.580	MC215	M0.5-41	MS-41	1468-.00001	SW5Q1	Fixed Trimmer
† Used in Initial Production									
‡ Used in Later Models. When using EL-452, AF886D4A, or UP9DJ48 disregard 20/25 section.									

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CONTROLS

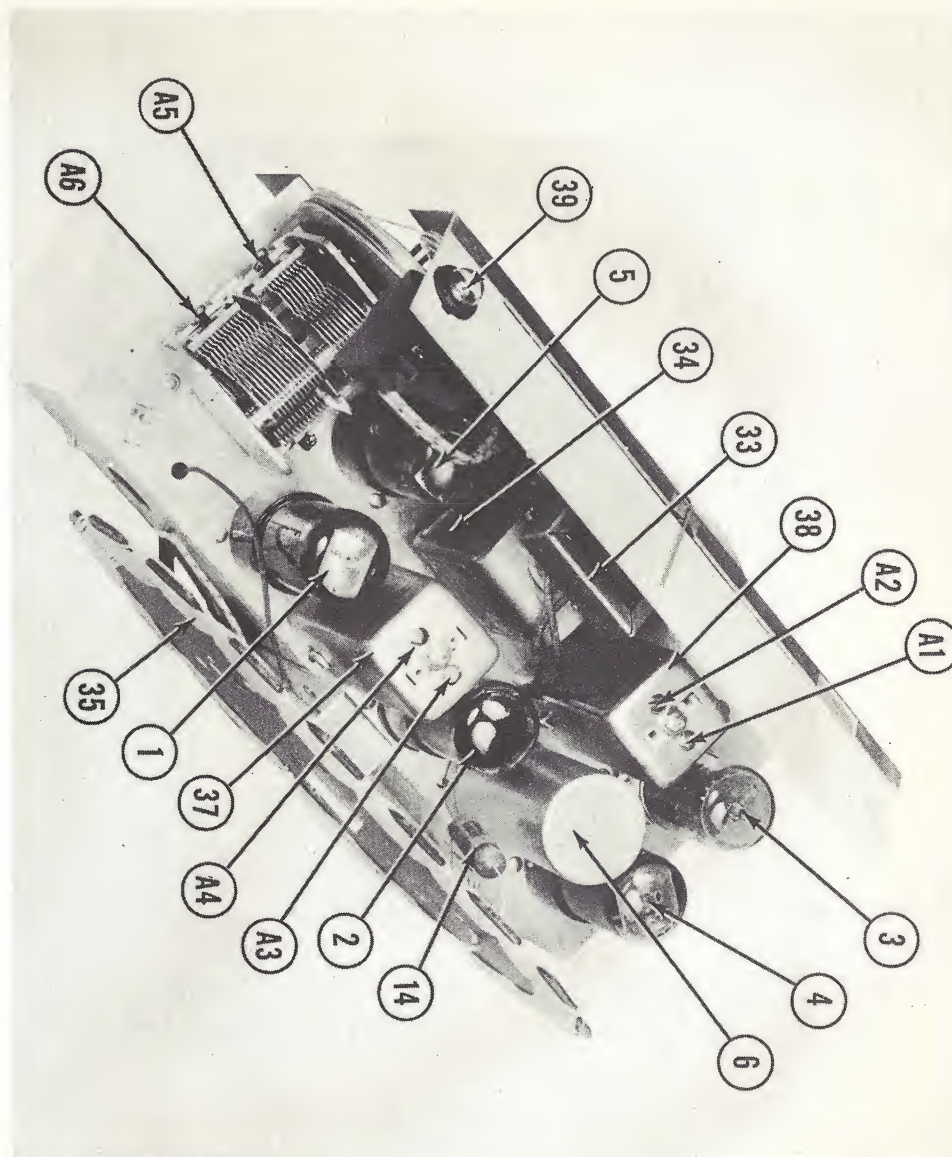
ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESIST-ANCE	WATTS	TEMPLE PART No.	MALLORY PART No.	IRC PART No.	CLAROSTAT PART No.	
20(A)	500K Ω	1	650.504E	MR48	DS13-133	M-60-Z	Volume Control
(B)	Shaft		Not Req.	Not Req.	A	Not Req.	Attach to 20A per instructions
(C)	Switch		"	M26	41	SW-A	"

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	TEMPLE PART No.	IRC PART No.	
21	22K Ω	1/4	605.2231	BTS-22K	Red-Red-Or. Osc. Grid
22	3.3 Meg.	1/4		BTS-6.8 Meg	Or.-Or.-Grn. AVC Network
23	3.3 Meg.	1/4			Or.-Or.-Grn. " "
24	2.2 Meg.	1/4	605.2251	BTS-2.2 Meg	Red-Red-Grn. " "
25	47K Ω	1/4	605.4731	BTS-47K	Y1.-V1.-Or. Diode Load
26	10 Meg.	1/4	605.1061	BTS-10 Meg	Br.-Blk.-Blue 1st AF Grid
27	220K Ω	1/4	605.2241	BTS-220K	Red-Red-Y1. 1st AF Plate Load
28	470K Ω	1/4	605.4741	BTS-470K	Y1.-V1.-Y1. Output Grid
29	150 Ω	1	601.1511	BW-1-150	Br.-Grn.-Br. Output Cathode
30	1200 Ω	2		BW-2-1200	Br.-Red-Red Filter
31	120 Ω	1		BW-1-120	Br.-Red-Br. " "
32	47 Ω	1		BW-1-47	Y1.-V1.-Blk. Rect. Ballast-See Note 1

#The IRC Part No. BTS-6.8 Meg. replaces both original 3.3 Meg. Resistors.
Used in some models only.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS

TRANSFORMER (OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		TEMPLE PART No.	STANCOR PART No.	THORDAR'N PART No.	UTAH PART No.	
	PRI.	SEC.	PRI.	SEC.					
33	1660Ω	3.29Ω	153Ω	.58Ω	851.514	A-3876*	T-14S82	8775	*One new mounting hole required.

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
			TEMPLE PART No.	JENSEN PART No.	UTAH PART No.	
	34	FIELD PM	VC IMP. 3.29Ω	780.008	ST-106	
	CONE DIA. 4-5/8"	VC DIA. 1/2"	NOT READILY	REPLACEABLE-USE COMPLETE SPEAKER UNIT.		

R F COILS

ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	TEMPLE	MEISSNER	
				PART No.	PART No.	
35	Loop Ant.	0Ω	1Ω	251.145		
36	Osc.	.5Ω	4.5Ω	251.143	14-1040	
37	Input IF	15Ω	15Ω	251.146	16-6658	
38	Output IF	15Ω	17Ω	251.147	16-6660	

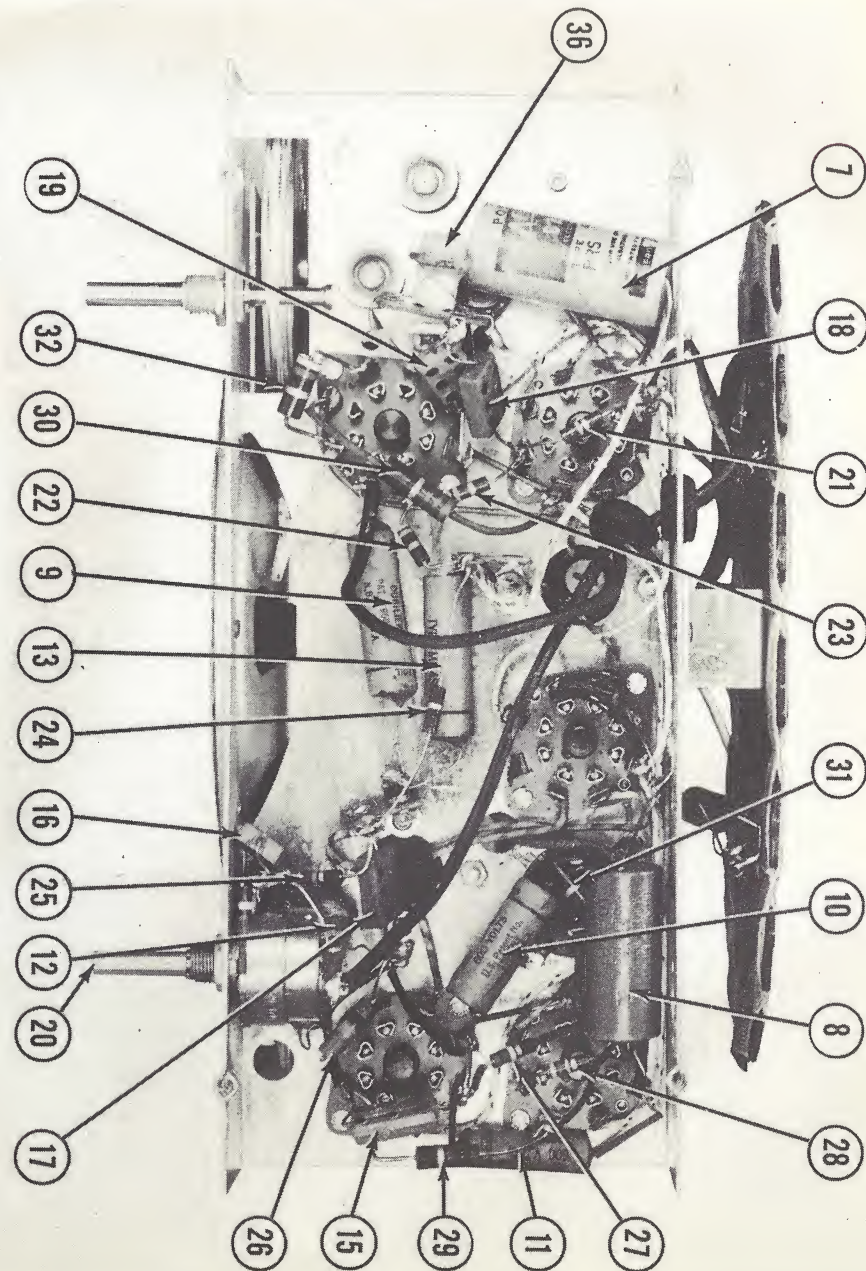
DIAL LIGHT

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		INSTALLATION NOTES
					TEMPLE PART No.		
39	Bayonet	6-8	0.2	White	51		51

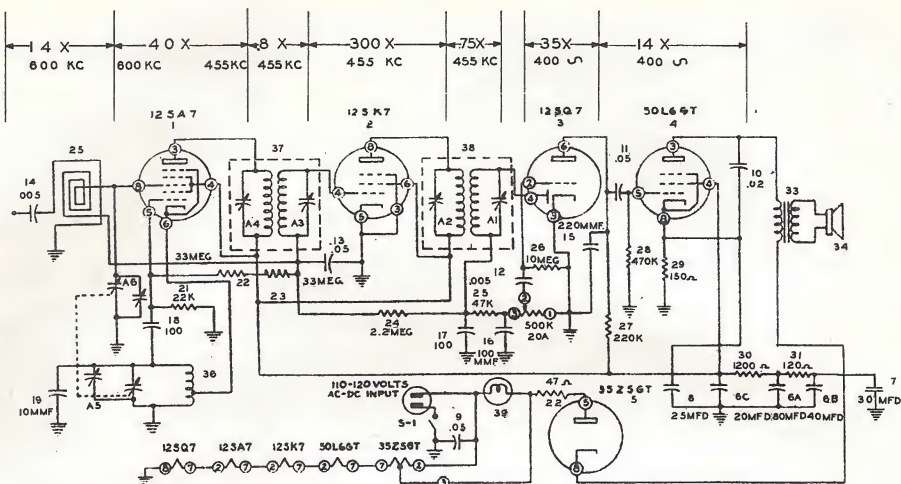
MISCELLANEOUS

ITEM No.	PART NAME	TEMPLE PART No.	NOTES
A5	Trimmer		Oscillator-Part of 165.513
A6	Tun. Cap.	165.513	Antenna-Part of 165.513
	Dial Scale	311.003	2 Gang variable tuning capacitor

CHASSIS—BOTTOM VIEW

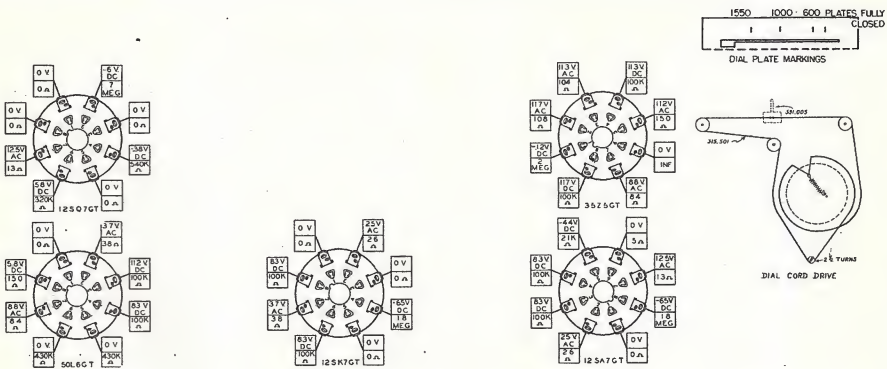


SCHEMATIC DIAGRAM



The stage gain measured values listed above are approximate values for an average operative stage, rather than an absolute value. It should be borne in mind that it is possible to introduce so many variables into the measurement operation, such as, type of equipment used for measuring, handling and placement of probes, the accuracy of alignment, etc., that an absolute reading is impractical. AVC is made inoperative and 3-volt battery bias substituted for measurement.

VOLTAGE AND RESISTANCE ANALYSIS CHART



- 1 - DC Voltage measurements are at 20,000 ohms per volt: AC Voltages measured at 1000 ohms per volt.
- 2 - Socket connections are shown as bottom views.
- 3 - Measured values are from socket pin to common negative.
- 4 - Line voltage maintained at 117 volts for voltage readings.
- 5 - Nominal tolerance on component values makes possible a variation of $\pm 10\%$ in voltage and resistance readings.
- 6 - Volume control at maximum, no signal applied for voltage measurements.

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